

Work Order ID 161873

Tuesday, May 23, 2017 10:59:35 AM

161873

Page 1

Item ID: D412-724-043

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Head Rest Assembly, LH

Start Date: 5/31/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 6/2/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan:

Date: MAY 24 2017 Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
IIN-D412-724	Rev a

DAS
6
9-89

MAY 30 2017

100

Document Control

0.00

100

DC

DOCUMENT CONTROL

Memo

0.00

Doc.Control -USB or Paperwork

If D412-724-043 is a W/O on it's own, Photocopy bluefile and create labels per
PPP D412-724-043 CHG001

2

DAS
27
9-89

JUN 01 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

2x

DAS
26
9-89

MAY 30 2017

DAS
28
9-89

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.06

Quality Control

2

DAS
27
9-89

JUN 01 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

Work Order ID 161873

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161873

Page 2

Item ID: D412-724-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Head Rest Assembly, LH
Start Date: 5/31/2017 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 6/2/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: _____ Packaging Memo Identify and pack for shipping as per PPP D412-724-043 Location : FG017	0.00 0.00				2	DAS 27 9-89		
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.20					DAS 21 9-89		JUN 01 2017

JUN 01 2017

DAS
21
9-89 JUN 01 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Page 1

Work Order ID: 161873

161873

Parent Item: D412-724-043

D412-724-043

Parent Item Name: Head Rest Assembly, LH

Start Date: 5/31/2017

Required Date: 6/2/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A04.09.08New IssueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN525-10R6

Purchased

No

120

Each

426.0000

4

8

AN525-10R6

Screw

**

Location

Loc Qty

Loc Code

ST329

426

M134502

26

M137307

400

D3303-041

Manufactured

No

120

Each

7.0000

1

2

D3303-041

Head Rest

**

Location

Loc Qty

Loc Code

ST457

7

158123

5

159042

2

D3304-043

Manufactured

No

120

Each

5.0000

1

2

D3304-043

Tube Assembly

**

Location

Loc Qty

Loc Code

ST458

5

145524

1

158488

4

DAS
27
9-89

DAS
27
9-89

DAS
27
9-89

DAS
26
9-89
MAY 30 2017

DAS
26
9-89
MAY 30 2017

DAS
26
9-89
MAY 30 2017

DA
28
9-89

DAS
28
9-89

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Item ID: D412-724-043

Revision ID:

Item Name: Head Rest Assembly, LH

Start Date: 5/31/2017 Start Qty: 2.00

Required Date: 6/2/2017 Req'd Qty: 2.00

2

2

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

Approvals:

Process Plan:

Date: MAY 24 2017

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN-D412-724	Rev a								
100	Document Control	0.00							
100	DOCUMENT CONTROL	0.00							
DC	Memo								
Doc.Control -USB or Paperwork	If D412-724-043 is a W/O on it's own, Photocopy bluefile and create labels per PPP D412-724-043 CHG001								
110	Pick Kit	0.00							
110		0.00							
Packaging	Memo								
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120		0.06							
QC	Memo								
Quality Control									

CB

D

MAY 31 2017



Transport Canada

Transports Canada

Department of Transport

Part Design Approval

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: PDA04-11**Issue No.:** 1**Approval Date:** September 17, 2004**Issue Date:** September 17, 2004**Responsible Office:**

Ontario

Aeronautical Product Type or Model:

BELL 205A-1, 205B, 212, 412, 412 CF, 412 EP

Canadian Type Certificate or Equivalent:

BELL 205B H-104

BELL 212, 412, 412 CF, 412 EP H-86

BELL 205A-1 H1SW

Complies with FAA Type Certificates: H1SW, H4SW

Replacement Part:

Replacement Headrests

-See Eligibility List-

**Installation/Operating Data,
Required Equipment and Limitations:**

Manufacture of the Replacement Headrests must be in accordance with Dart Aerospace Ltd. Document Record, DR-D412-724, Rev. B, dated 04.09.17, or later approved revisions.

Installation of the Replacement Headrests must be in accordance with Dart Aerospace Ltd. Installation Instructions, IIN-D412-724, Rev. A, dated 04.08.19, or later approved revisions.

Maintenance of the Replacement Headrests must be in accordance with Dart Aerospace Ltd. Instructions for Continued Airworthiness, ICA-D412-724, Rev. 0, Transport Canada accepted Sep 17 2004, or later Transport Canada accepted revisions.

See continuation sheet



Conditions: The installation of the approved part is to be limited only to the type / model of aeronautical product(s) listed above.

K.R. Bruce
For Minister of Transport

Canada

REFERENCE ONLY**3.0 INSTALLATION PROCEDURE****To install a Dart Head Rest Assembly:**

- 3.1 If installed, remove the existing Head Rest Assembly by pulling the quick release pin that attaches it to the seat. Make note of the installation position (if applicable).
- 3.2 Inspect the seat for damage in the vicinity of the Head Rest Assembly. Consult the Aircraft Maintenance Manual for disposition if damage is observed.
- 3.3 If only replacing the Head Rest with the equivalent Dart D3303-041 Head Rest, separate the existing Head Rest from the existing Tube Assembly by undoing 4 screws. Re-assemble D3303-041 Head Rest with existing Tube Assembly by installing 4 screws and tightening to 15-25 in lb.
- 3.4 If only replacing the Tube Assembly with a Dart D3304-041/-043/-044 Tube Assembly, separate the existing Head Rest from the existing Tube Assembly by undoing 4 screws. Re-assemble existing Head Rest with Dart D3304-041/-043/-044 Tube Assembly by installing 4 screws and tightening to 15-25 in lb.
- 3.5 Slide the new or modified Head Rest Assembly into the seat tube and lock in place at the same location that the old Head Rest Assembly was installed (if applicable) using the quick release pin. Ensure pin is properly engaged.

4.0 WEIGHT AND BALANCE

There is negligible weight change associated with the installation of the Dart Head Rests.

5.0 PARTS LIST

QTY -011	QTY -041	QTY -043	QTY -044	Part Number	Description
X				D412-724-011	Dart Replacement Head Rest Kit, for 205/212/412
2	X			D412-724-041	Head Rest Assembly, Center
1		X		D412-724-043	Head Rest Assembly, LH
1			X	D412-724-044	Head Rest Assembly, RH
	1	1	1	D3303-041	Head Rest
	1			D3304-041	Tube Assembly
		1		D3304-043	Tube Assembly
			1	D3304-044	Tube Assembly
	4	4	4	AN525-10R6	Screw

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Revision: **A**
Date: 04.08.19